Faculty of Cognitive Sciences and Human Development

THE RELATIONSHIP BETWEEN HIGH PERFORMANCE WORK SYSTEM AND SAFETY PERFORMANCE AMONG EMPLOYEES AT WORKPLACE

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Bachelor of Science with Honours
(Human Resource Development)
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Statement of Originality

The work described in this final year project, entitled **The Relationship between High Performance Work System and Safety Performance among Employees at Workplace** is the best of the author's knowledge that of the author except where due reference is made.

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THE RELATIONSHIP BETWEEN HIGH PERFORMANCE WORK SYSTEM AND SAFETY PERFORMANCE AMONG EMPLOYEES AT WORKPLACE

VANISA A/P KARUPAIAH

This project is submitted in partial fulfillment of the requirement for a
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ABSTRACT

THE RELATIONSHIP BETWEEN HIGH PERFORMNACE WORK SYSTEM AND SAFETY PERFORMANCE AMONG EMPLOYEES AT WORKPLACE.

VANISA A/P KARUPAIAH

This study aims to study the relationship between high performance work system and employees' safety performance at workplace. Employees from Carsem (M) Sdn Bhd Ipoh, Perak made up the population for this study whereby 170 respondents participated in this study. A survey questionnaire which consisted four parts namely the demographic factors, overall safety performance at workplace, dimensions of high performance work system and open ended questions were constructed as a mean for data collection The variables included in this research are safety training, self-managed teams, information sharing, high-quality work and employment security. As for the relationship between the high performance work system and safety performance were determined by using inferential statistics which is the Pearson Correlation Analysis whereas the dominant factor was determined using the Simple Linear Regression Analysis. Besides that, this study has revealed that there are significant relationships between the dimensions of high performance work system and safety performance. The safety training were determined as the dominant factor that influences safety performance the most. New findings were discovered in this research which has strengthened the previous studies in this field. As a conclusion, several managerial implications and recommendations upon future research were also identified whereby it indicates that the high performance work system should be practiced at the workplace.

ABSTRAK

PERHUBUNGAN ANTARA SISTEM KUALITI KERJA TINGGI DAN PRESTASI KESELAMATAN PEKERJA DI TEMPAT KERJA

VANISA A/P KARUPAIAH

Kajian ini bertujuan untuk mengkaji perhubungan antara sistem kualiti kerja tinggi dan prestasi keselamatan pekerja di tempat kerja. Populasi bagi kajian in adalah pekerja-pekerja dari Carsem (M) Sdn Bhd Ipoh, Perak. Sample kajian terdiri daripad 170 orang responden. Suatu tinjauan menggunakan boring kaji selidik yang mengandungi empat bahagian untuk mengkaji faktor demografi, prestasi keselamatan, dimensi sistem kualiti kerja tinggi serta soalan terbuka telah dibuat. Bagi menkaji perhubungan antara sistem kualiti kerja tinggi dan prestasi keselamatan, statistic infenren iaitu Analisa Pearson Correlation telah digunakan. Faktor dominan telah dikenal pasti menggunakan Analisa Simple Linear Regression. Dapatan kajian menunjukkan ad perhubungan diantara semua dimensi sistem kualiti kerja tinggi dan prestasi keselamatan.Faktor dominan yang dikenal pasti adalah latihan keselamatan. Penemuan baru menerusi kajian ini telah memperkukuhkan lagi dapatan kajian lepas. Kesimpulannya, bebarapa implikasi kepada pengurusan dan untik kajian masa akan dating telah dicadangkan sebagai saha mempraktikkan sistem kualiti kerja tinggi.

CHAPTER 1

INTRODUCTION

1.0 Introduction

Traditionally, the most frequent method for managing occupational safety has been by taking a control-oriented approach to human resources (Barling & Hutchinson, 2000), one that assumes workers are motivated to exert only as much effort as is necessary for task completion. As such, it is management's responsibility to use its legitimate authority to control employee behavior (Walton, 1985). In terms of occupational safety, the control-oriented approach emphasizes the use of rules to enforce behaviors and the use of punishment to increase rule compliance (Barling & Hutchinson, 2000).

There has been a growing realization that human resources are better managed by high-commitment or high-involvement oriented strategies (Lawler, 1996). Instead of

relying on compliance by means of rules, regulations, and monitoring to decrease costs and increase efficiency, high-commitment management creates conditions that encourage employees to identify with the goals of the organization and to exert effort to achieve them (Whitener, 2001). Similarly, high involvement management concentrates on empowering employees through increased information flows and devolution of decision making power, leading to greater productivity.

More recently, the term high-performance work system has been used to characterize these transformed workplaces. Although high-performance work systems encompass the high-commitment and involvement elements, they are also broader in scope by emphasizing the competitive advantage gained by such human resource practices. Way (2002) and Wall (2002) conceptualized high-performance work systems as a group of separate but interconnected human resource practices that together recruit, select, develop, motivate, and retain employees. Way (2002) suggested that this is achieved by ensuring that employees possess a broad range of superior skills and abilities that are used at work, which ensure that their organizations achieve "superior intermediate indicators of firm performance".

High-performance work systems assume employees are a primary source of competitive advantage that is difficult for others to imitate and that employees are capable of continuous improvement and will perform at higher levels if they are motivated to do so (Pfeffer, 1998). This is achieved by encouraging practices such as participative decision making, providing high-quality training, and sharing information.

By treating employees with respect and as capable and intelligent individuals, organizations will find that workers will be more committed to the organization and more trusting of management, which will result in improved performance. Whitener (2001) proposed a social-exchange framework to explain this relationship. Employees view human resource practices as indicative of the organization's commitment to them. In turn, employees reciprocate with appropriate attitudes and behaviors. In this study, the expected behavior is to achieve better safety performance.

1.2 Background of the Study

Numerous studies now provide empirical support for the superiority of high-performance work systems for employee and occupational safety at organizational level. In a study of 30 minimills, Arthur (1994) found that performance quantity (in terms of labor hours) and performance quality (as measured by scrap rates, turnover rates) were significantly better in minimills operating under a commitment-oriented system than in minimills managed in a control-oriented fashion. Huselid, (1995) examined 958 publicly traded companies and reported that high-performance work systems were associated with significantly lower turnover rates, greater employee productivity in terms of sales per employee, and both market-based and accounting-based measures of corporate performance. Similarly, Ichniowski ,(1997) found that steel output was greater when organizations had in place practices such as incentive pay, flexible job design, elaborate screening of new employees, employment security, problem solving teams, and off-the-job training.

Employees of organizations with more traditional approaches to human resource management produced less than their peers. Now the argument is that high-performance work systems can be applied to improving workplace safety just as well as firm economic performance. This assertion follows the argument often found in the literature that safety should be considered a performance variable much like production, profits, sales, quality control, or customer complaints (Griffiths, 1985). Pfeffer (1998) stated that it is important for organizations to measure indicators that are important to their particular business and that successful companies often have performance standards that are unique and go beyond typical financial reporting measures.

This research is extended to predict that high-performance work systems will also influence occupational safety, and it is hypothesized specifically that a high-performance work system will improve workplace safety by increasing employee trust in management and perceived safety performance approaches. Although there is some debate regarding the number of human resource practices that constitute a high-performance work system, it is generally agreed that they should be multiple and mutually reinforcing (Huselid, 1995). Becker and Huselid (1998) concluded that it is theoretically appropriate to consider a high-performance work system as a single system that has been for a unitary index which contains a set of theoretically appropriate human resource management practices derived from prior work.

Therefore, this study is developed as a system of high-performance work practices in improving safety performance of an organization, and not to replicate or test other

high-performance work systems. In addition, although it is beyond the scope of this study to discuss the contingency, and configurationally approaches of high-performance work systems on the basis of Pfeffer's (1998) framework, the study proposes a set of 5 practices that have been theoretically and empirically associated with occupational safety. These includes the replication of Pfeffer's (1998) seven factors like employment security, selective hiring, extensive training, teams and decentralized decision making, reduced status distinctions, information sharing, and contingent compensation, in predicting occupational safety (Barling, Kelloway, & Iverson, 2003).

1.2 Problem Statement

Most employees in developed countries assume their organizations will take all necessary measures to ensure that they return home safely at the end of the work day, yet work-related injuries and deaths continue to occur at an alarming rate. In the United States, there were 6,026 fatal work injuries and approximately 3.8 million nonfatal injuries in 1998, resulting in an estimated 80 million production days lost for that year and almost 60 million days in future years (Bureau of Labor Statistics, 2000; United States Census Bureau, 2000). In 1999, there were 833 work-related fatalities in Canada, while 379,395 Canadian workers suffered injuries serious enough to be compensated either for wages lost due to time off from work or a permanent disability (Association of Workers' Compensation Boards of Canada, 2000).

In Malaysia, an average of three workers were killed and about 148 work-related accidents reported each day last year, figures that Deputy Human Resources Minister

Datuk Maznah Mazlan described as "alarming". Furthermore, at the same period, Socso records also showed that over 12,000 workers were categorized as permanently disabled due to workplace accidents. These data illustrate the enormous cost of occupational injuries and fatalities for organizations in terms of production and for lives altered and lost by these work-related events.

Work injuries continue to be a major issue for employers economically. This stems both from the direct costs (such as medical costs) associated with work-related injuries as well as the indirect costs of lost work time, replacement workers and administrative costs. These factors, as well as the lowered morale that sometimes accompanies high injury rates, can also contribute to decreased productivity and, thus, increased costs within an organization.

Furthermore, OSHA does not have a published report on the causes of accidents; it focuses on protecting the worker and "how to do that" rather than examining causation. In other words, any occurrence of accidents provides sufficient evidence that action must be taken to regulate those who-in OSHA's opinion-cause them or could otherwise prevent them. In OSHA's Strategic Plan for 1996-2000, a couple of points suggest that noncompliance to OSHA's regulations is the chief problem when accidents occur since compliance would prevent workplace hazards and exposures. Currently, OSHA is beginning to follow the behaviorists' theories by trying to regulate the workplace culture to promote employer and worker awareness and commitment to-as well as involvement with-safety and health.

The following graphs shows the statistics of occupational accidents reported under Department of Occupational Safety (DOSH) in Malaysia. The analysis is according to sectors and it is divided into two categories which are the permanent disabilities (PD) and non-permanent disabilities (NPD). The statistics is updated till November 2009 and all of these reported accidents are investigated by the authority.

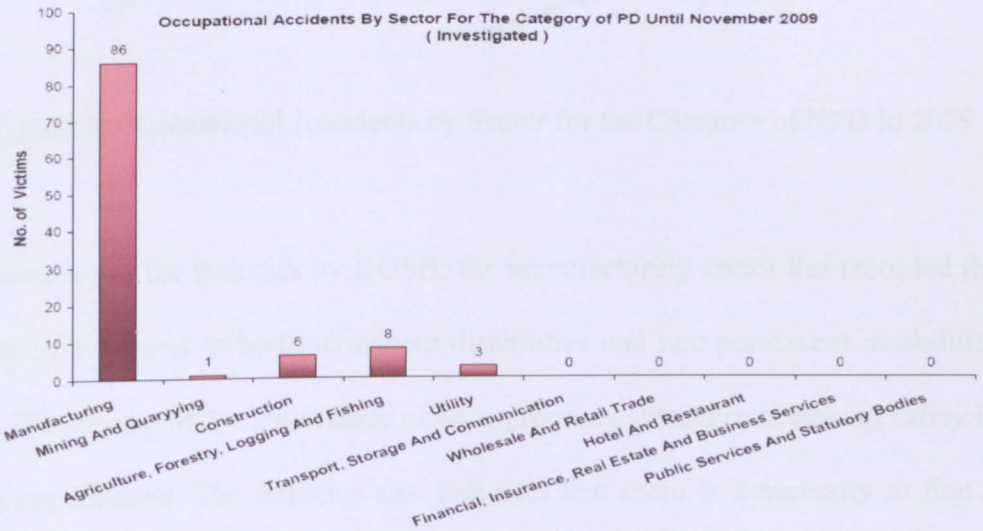

Figure 1: Occupational Accidents by Sector for the Category of PD In 2009

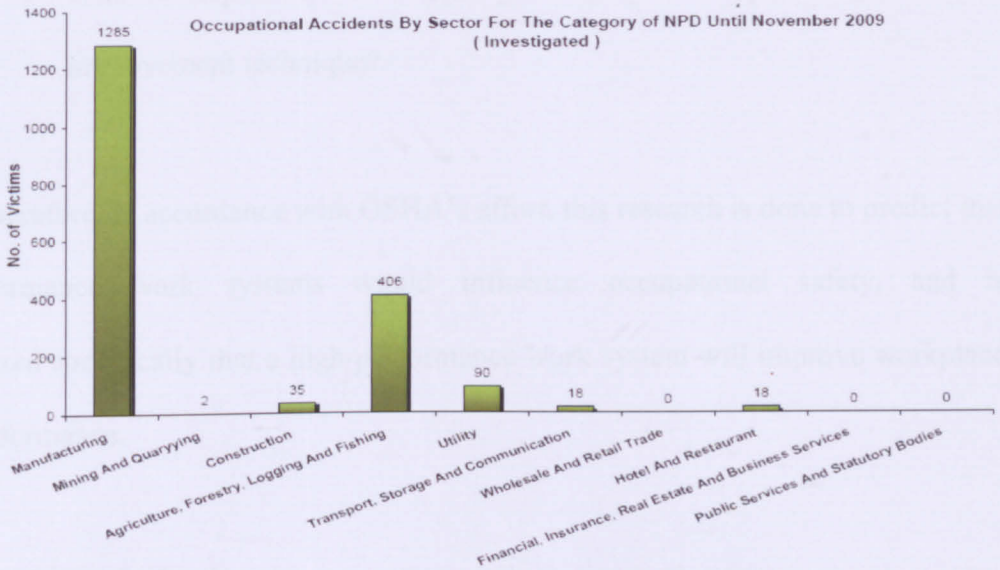

Figure 2: Occupational Accidents by Sector for the Category of NPD In 2009

According to the statistics by DOSH, the manufacturing sector has recorded the highest rate of accidents in both permanent disabilities and non-permanent disabilities categories. These support the importance of an appropriate system in managing safety in manufacturing industry. The statistics also indicates that there is a necessity to find a proper approach in dealing with occupational safety performances among employees at workplace.

Together all these statements raises several questions should be answered in order to come up with suitable systems to deal with safety performance at workplace. Among the questions are:

- What can be done to improve safety performance in organizations?
- How changes can be made to ensure adherence to safety rules and regulations?

- Who is responsible in designing the proper safety management and improvement technique?

Therefore, in accordance with OSHA's effort, this research is done to predict that high-performance work systems would influence occupational safety, and is hypothesized specifically that a high-performance work system will improve workplace safety performance.

1.3 Objectives of the Study

General Objective:

To identify the relationship between the high performance work system and safety performance among employees at workplace.

Specific Objectives:

I. To determine the relationship between safety training and safety performance.
II. To determine the relationship between self-managed teams and safety performance.
III. To determine the relationship between information sharing and safety performance.
IV. To determine the relationship between high-quality work and safety performance.
V. To determine the relationship between employment security and safety performance.

VI. To determine employees' perception towards safety performance at workplace.

VII. To identify the factor that influences safety performance the most.

1.4 Conceptual Framework

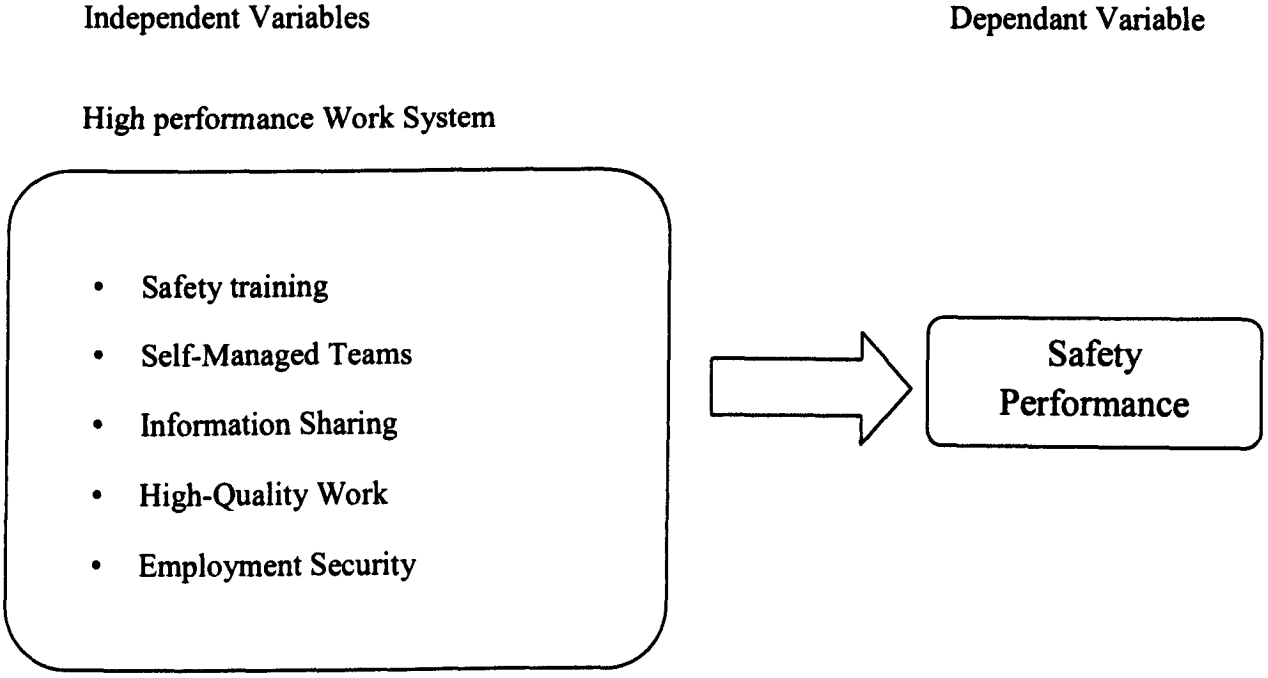

Figure 3: Conceptual Framework

Source: The High Performance Work System framework is adapted and modified from the research conducted by Barling, J., Zacharatos. A, & Iverson, R. D. (2005). *Journal of Applied Psychology,* 88, 276–283.

1.5 Hypothesis

H_a1. There is a significant relationship between safety training and safety performance.